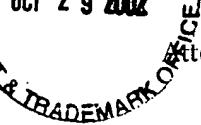


OCT 29 2002

10-31-02

2621
PATENT



Attorney's Docket No. 074451.P042X2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of:

Edward L. Schwartz

Application No.: 09/704,991

Filed: November 2, 2000

For: REVERSIBLE EMBEDDED
WAVELET SYSTEM
IMPLEMENTATION

Examiner: Unknown

Art Unit: 2621

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Commissioner for Patents
Washington, DC 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a copy of Information Disclosure Citation Form PTO-1449 together with copies of the documents cited on that form. It is respectfully requested that the cited documents be considered and that the enclosed copy of Information Disclosure Citation Form PTO-1449 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

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- _____ A statement pursuant to 37 C.F.R. §1.97(e) or
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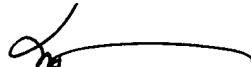
_____ **STATEMENT UNDER 37 C.F.R. §1.97(e)** I hereby certify:

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Respectfully submitted,

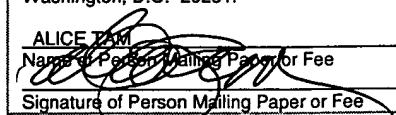
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 10/29/02



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Substitute for Form 1449A/PTO (Modified)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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OCT 29 2002

Sheet 1 of 6

Complete if Known	
Application Number	09/704,991
Filing Date	November 2, 2000
First Named Inventor:	Edward L. Schwartz
Group Art Unit	2621
Examiner Name	Unknown

Attorney Docket Number 74451.P042X2

U.S. PATENT DOCUMENTS

Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (if known)			
A	6118902			Knowles	09/12/2000	
B	5867602			Zandi et al.	02/02/1999	
C	5638498			Tyler et al.	06/10/1997	
D	5602589			Vishwanath et al.	02/11/1997	
E	5563960			Shapiro	10/08/1996	
F	5546477			Knowles et al.	08/13/1996	
G	5537493			Wilkinson	07/16/1996	
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J	5453945			Tucker et al.	09/26/1995	RECEIVED
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Q	5148498			Resnikoff et al.	09/1992	
R	5109451			Aono et al.	04/28/1992	
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T	4922544			Stansfield et al.	05/01/1990	

FOREIGN PATENT DOCUMENTS

Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
U	GB	2303031				06/25/1996		
V	GB	2303030				06/25/1996		
W	GB	2293734				07/09/1995		
X	GB	2293733				07/09/1995		
Y	UK	2285374	A			05/07/1995		
Z	EP	0662741	A2			11/02/1994		
AA	EP	0611051	A1			08/17/1994		

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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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		Office ³	Number ⁴				
	DD	WO	9417492		08/04/1994		
	EE	EP	0593013	A2	04/20/1994		
	FF	WO	9310634		05/27/1993		
	GG	EP	0510933	A1	10/28/1992		
	HH	WO	9118361		11/28/1991		
	II	WO	9103902		03/21/1991		
	JJ	UK	2211691	A	05/07/1989		

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**INFORMATION DISCLOSURE
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OCT 29 2002

Application Number	09/704,991
Filing Date	November 2, 2000
First Named Inventor:	Edward L. Schwartz
Group Art Unit	2621
Examiner Name	Unknown

Sheet 4 of 6 Attorney Docket Number 074451.P042X2

OTHER ART – NO PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	MM	Mutsumi Ohta, Mitsuharu Yano and Takao Nishitani, "Wavelet Picture Coding with Transform Coding Approach", 1/31/99, pp. 776-785.	
	NN	French Search Report, FR9511024, 11/26/1996.	
	OO	French Search Report, FR9511023, 11/26/1996.	RECEIVED NOV 01 2002
	PP	Dutch Search Report, NO133082, 11/26/1996.	Technology Center 2600
	QQ	Calderbank, et al., "Wavelet Transforms That Map Integers to Integers", August 1996.	
	RR	Szu et al., "Image Wavelet Transforms Implemented by Discrete Wavelet Chips", July 1994, <u>Optimal Engineering</u> , Vol. 33, No. 7, pp. 2310-2325.	
	SS	Villasenor, et al., "Filter Evaluation and Selection in Wavelet Image Compression", <u>IEEE</u> , 1994, pp. 351-360.	
	TT	Denk, et al., "Architectures for Lattice Structure Based Orthonormal Discrete Wavelet Transforms", <u>IEEE</u> , 1994, pp. 259-270.	
	UU	Shapiro, "Embedded Image Coding Using Zerotrees of Wavelet Coefficients", <u>IEEE Transactions on Signal Processing</u> , 12/93, No. 12, pp. 3445-3462.	
	VV	Jie Chen, Shuichi Itoh, and Takeshi Nishitani, "Wavelet Picture Coding with Transform Coding Approach", 1/31/99, pp. 776-785.	
	WW	Padmanabhan, et al., "Feedback-Based Orthogonal Digital Filters", <u>IEEE Transactions on Circuits and Systems</u> , 8/93, No. 8, pp. 512-525.	
	XX	Said, et al., "Reversible Image Compression Via Multiresolution Representation and Predictive Coding", <u>SPIE</u> , Vol. 2094, 8/11/93, pp. 664-674.	

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Sheet 5 of 6

Attorney Docket Number

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Application Number	09/704,991
Filing Date	November 2, 2000
First Named Inventor:	Edward L. Schwartz
Group Art Unit	2621
Examiner Name	Unknown

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NOV 01 2000**OTHER ART – NO PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	YY	Said, et al., "Image Compression Using the Spatial-Orientation Tree", <u>IEEE</u> , 1993, pp. 279-282.	
	ZZ	Xiong, et al., "Joint Optimization of Scalar and Tree-Structured Quantization of Wavelet Image Decompositions", <u>IEEE</u> , 1/11/93, pp.891-895.	
	AAA	Howard et al., "Fast and Efficient Lossless Image Compression", <u>IEEE</u> , 1993, pp. 351-360.	
	BBB	Shapiro, J.M., "An Embedded Hierarchical Image Coder Using Zerotrees of Wavelet Coefficients", <u>IEEE</u> , 1993, pp. 214-223.	
	CCC	Cha Keon Cheong, Kyoharu Aizawa, Takahiro Saito and Mitsutoshi Hatori; "Subband Image Coding with Biorthogonal Wavelets"; 7/92; Pages 871-881	
	DDD	Antonini et al., "Image Coding Using Wavelet Transform", <u>IEEE Transactions on Image Processing</u> , Vol. 1, No. 2, April 1992, pp. 205-220.	
	EEE	Chui, et al., "Wavelets on a Bounded Interval", <u>Numerical Methods of Approximation Theory</u> , Vol. 9, 1992, pp. 53-75.	
	FFF	Shah et al., "A Chip Set for Lossless Image Compression", <u>IEEE Journal of Solid-State Circuits</u> , Vol. 26, No. 3, March 1991, pp. 237-244.	
	GGG	Langdon, Jr., Glen G., "Sunset: A Hardware-Oriented Algorithm for Lossless Compression of Gray Scale images", <u>SPIE Vol. 1444, Image Capture, Formatting, and Display</u> , 1991, p. 272-282.	
	HHH	A.S. Lewis and G. Knowles; "Image Compression Using the 2-D Wavelet Transform"; 11/15/90, Pages 244-250	
	III	Le Gall, et al., "Sub-band Coding of Digital Images Using Symmetric Short Kernel Filters and Arithmetic Coding Techniques", 1988, <u>International Conference on Acoustics, Speech and Signal Processing</u> , pp. 761-764.	

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